Regulatory Program Looks to the Future and Beyond

Size is definitely relative. With only a handful of people, the TRU & Mixed Waste Focus Area's (TMFA) Regulatory Program may be one of the smallest programs at the Idaho National Engineering and Environmental Laboratory, but it is making a huge difference across the DOE complex and in the regulatory community. The program ensures that the DOE's mixed waste research and development activities are in compliance, not only with current environmental regulations but future regulations as well.

"Our job is to make sure our programs are positioned to hit regulatory targets in the future," said Dave Eaton, Regulatory Specialist. "That means understanding new rules and regulations and working closely with regulators."

The job also requires them to adjust quickly to changing priorities. The public's growing resistance to incineration has created a demand for alternative treatment technologies. The TMFA's Technical Team and the Regulatory Program have been leaders in ensuring that alternative technologies will be ready when needed.

"We knew that some mixed wastes are not easily incinerated," said Eaton. "Mercury-containing wastes, for example, are common across the DOE complex. We realized we needed to develop alternatives to incineration and began working on developing new technologies more than five years ago."

A close working relationship and a strong partnership with the Environmental Protection Agency (EPA) has been vital to this effort. The EPA has experience working with hazardous wastes and the Regulatory Program assisted them in understanding the unique aspects of radioactive wastes.

Recently, the DOE Office of Science and Technology and the EPA Office of Solid Waste signed a Memorandum of Understanding to improve cooperation in the research and development of technical solutions for mixed waste treatment. Three projects have been initiated.

The first project will study the effectiveness of particulate matter continuous emissions monitors to determine how they can be used to monitor the performance of HEPA filtered systems and detect HEPA filter failure.

Another project will help determine the kinds of data required to help regulators issue a permit for new or innovative treatment technologies. The EPA has not yet developed a standardized approach for demonstrating the effectiveness and failure modes for these new technologies.

A third project involves mercury pollution in DOE wastes. Mercury is not only very toxic, but presents special challenges in isolating it permanently from man and his immediate environment presents special challenges. The EPA is very interested in learning where the technical data gaps are in their proposed mercury action plan. Filling those gaps will help the EPA implement their new rules.

The Regulatory Program also conducts workshops and symposiums on new regulations and upcoming regulatory changes with other DOE sites. Sharing information with other sites has had very beneficial results. For example, the Hanford, Sandia and Fernald sites have recently learned that new rules for handling PCB-contaminated waste actually gave them more options and opportunities than originally thought.

The complex nature of many of DOE's mixed wastes has already made the job of the TMFA's Regulatory Program intricate and challenging. In the future, regulations will keep changing and are expected to get tougher in response to public demand.

"Permitting and regulations will become much more case-specific and complex, being driven primarily by site specific risk assessments," said Eaton. "We will never get to zero risk but the public and the regulators will continue to drive us ever closer to the mark."

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